Claims

1. A sensor comprising:

a first knitted conductive textile plane,

a second conductive textile plane, and

an intermediate separating plane penetrable by the first knitted conductive textile plane to allow the first conductive textile plane and the second conductive textile plane to make electrical contact under a mechanical interaction;

the intermediate separating plane defines the structural perimeter of each of a plurality of apertures from which the first knitted conductive textile plane deforms towards the second conductive textile plane under a mechanical interaction; wherein:

the first knitted conductive textile plane has conductive yarn knitted to form a repeating pattern of stitches each comprising a stitch looping portion SLP having a looping portion footprint LPF,

the separating plane defines apertures A having an aperture footprint AF, and

at least one looping portion footprint LPF is wholly containable within at least one aperture footprint AF.

2. A sensor comprising:

a first knitted conductive textile plane,

a second conductive textile plane, and

an intermediate separating plane penetrable by the first knitted conductive textile plane to allow the first conductive textile plane and the second conductive textile plane to make electrical contact under a

mechanical interaction;

the intermediate separating plane defines structural endpoints extending towards the first conductive textile layer that are boundary vertices of a virtual polygonal aperture window and from which the first knitted conductive textile plane deforms towards the second conductive textile plane under a mechanical interaction; wherein:

the first knitted conductive textile plane has conductive yarn knitted to form a repeating pattern of stitches each comprising a stitch looping portion SLP having a looping portion footprint LPF,

the separating plane defines virtual polygonal aperture windows AW having an aperture window footprint AWF, and

at least one looping portion footprint LPF is wholly containable within at least one aperture window footprint AWF.

3. A sensor according to claim **1**, wherein:

the first knitted conductive textile plane has conductive yarn knitted to form a repeating pattern of stitches comprising a wale pitch dimension WPD occurring in a first direction and a course pitch dimension CPD occurring in a second direction,

the separating plane has apertures having a first aperture dimension FAD measured in said first direction and a second aperture dimension SAD measured in said second direction, and

at least one of said wale pitch dimension WPD and said course pitch dimension CPD is smaller than at least one of said first aperture dimension FAD and/or second aperture dimension SAD.

4. A sensor according to claim **2**, wherein:

the first knitted conductive textile plane has conductive yarn knitted to form a repeating pattern of stitches comprising a wale pitch dimension WPD occurring in a first direction and a course pitch dimension CPD occurring in a second direction,

the separating plane has virtual polygonal aperture windows having a first aperture window dimension FAWD measured in said first direction and a second aperture window dimension SAWD measured in said second direction, and

at least one of said wale pitch dimension WPD and said course pitch dimension CPD is smaller than at least one of said first aperture window dimension FAWD and/or second aperture window dimension SAWD

5. A sensor according to claim **1**, wherein said first knitted conductive textile plane, said second conductive textile plane, and said intermediate separating plane are each provided in the form of a separate layer.

6. A sensor according to claim **2**, wherein said first knitted conductive textile plane, said second conductive textile plane, and said intermediate separating plane are each provided in the form of a separate layer.

7. A sensor according to claim **1**, wherein said intermediate separating plane is provided in the form of a textile structure and said intermediate separating plane and said first knitted conductive textile layer are machined together to form a textile structure incorporating a predetermined loop-aperture alignment pattern.

8. A sensor according to claim **2**, wherein said intermediate separating plane is provided in the form of a textile structure and said intermediate separating plane and said first knitted conductive textile layer are machined together to form a textile structure incorporating a predetermined loop-aperture window alignment pattern.

9. A sensor according to claim **7**, wherein said predetermined loop-aperture alignment pattern incorporates loop-aperture alignment of a plurality of loops to an aperture.

10. A sensor according to claim **8**, wherein said predetermined loop-aperture alignment pattern incorporates loop-aperture alignment of a plurality of loops to an aperture window.

11. A sensor according to claim **5**, wherein said intermediate separating plane is provided in the form of a plastic mesh.

12. A sensor according to claim **6**, wherein said intermediate separating plane is provided in the form of a plastic mesh.

13. A sensor according to claim **5**, wherein said intermediate separating plane is provided in the form of a compressible mesh.

14. A sensor according to claim **6**, wherein said intermediate separating plane is provided in the form of a compressible mesh.

15. A sensor according to claim **1**, wherein said sensor is provided with a force concentration device comprising one of: a key position contact portion and a stylus.

16. A sensor according to claim **2**, wherein said sensor is provided with a force concentration device comprising one of: a key position contact portion and a stylus.

17. A sensor according to claim **1**, wherein said first knitted conductive textile plane includes at least one of: elastic yarn, textured yarn and multifilament yarn.

18. A sensor according to claim **2**, wherein said first knitted conductive textile plane includes at least one of: elastic yarn, textured yarn and multifilament yarn.

19. A sensor comprising:

a first knitted conductive textile plane,

a second conductive textile plane, and

an intermediate separating plane penetrable by the first knitted conductive textile plane to allow the first conductive textile plane and the second conductive textile plane to make electrical contact under a mechanical interaction substantially as described herein with reference to and as shown in accompanying *Figures 1-9*, *12* and *14-20*.

20. A sensor comprising:

a first knitted conductive textile plane,

a second conductive textile plane, and

an intermediate separating plane penetrable by the first knitted conductive textile plane to allow the first conductive textile plane and the second conductive textile plane to make electrical contact under a mechanical interaction substantially as described herein with reference to and as shown in accompanying *Figures 1-7, 10, 11* and *13-20*.